

REMARKS/ARGUMENTS

Status of the Application

Claims 1 through 40 are pending in this application. Claim 25 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to make and use the invention. Claims 1-5, 7-9, 11, 13-22, and 24-40 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent 5,636,122 (Shah) in view of U.S. Patent 6,131,067 (Girerd) and U.S. Patent 5,021,794 (Lawrence). Claims 6 and 10 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Shah and Girerd and further in view of U.S. Patent 6,353,743 (Karmel) and U.S. Patent 5,155,689 (Wortham). Claims 12 and 23 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Shah and Girerd and further in view of U.S. Patent 6,324,404 (Dennison).

Applicants' undersigned representative respectfully requests reconsideration in light of the above-listed amendments and following remarks.

Rejections Under 35 U.S.C. § 112

Claim 25 stands rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to make and use the invention. Applicants' undersigned representative respectfully requests reconsideration.

Claim 25 is directed to "[t]he crew locator system of claim 1, wherein said enterprise computing system further comprises a wireless tcp/ip radio modem in communication with said enterprise **UDP server and from which position data is received from said first mobile field unit.**"

Thus, claim 25 recites a UDP server and/or UDP client with the specified characteristics. Applicants' undersigned representative respectfully submits the UDP protocol was well known when the application was filed, and further that one skilled in the art knowing the UDP protocol could make and use the inventions of claim 25 without undue experimentation.

The test for enablement is whether one skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art **without undue experimentation**. MPEP 2164.01 citing *United States v. Teletronics, Inc.* 857 F.2d 778 (Fed. Cir. 1988). **A patent need not teach, and preferably omits, what is well known in the art.** *In re Buchner*, 929 F.2d 660, 661 (Fed. Cir. 1991).

In this instance, the UDP protocol was specified as early as August 28, 1980 in an RFC by the Internet Engineering Task Force (see enclosed), and would have been well known by someone skilled in the art. Likewise, TCP protocol was established and well known in the art. Because UDP and TCP were well known, one skilled in the art would not need to perform undue experimentation to convert between the two known protocols. Accordingly, the specification need not teach, and preferably omits, *see In re Bucher*, 929 F.2d at 661, details for implementing a conversion between UDP and TCP. Therefore, Applicants' undersigned representative respectfully requests withdrawal of the rejections under 35 U.S.C. § 112.

Rejections Under 35 U.S.C. § 103

Claims 1-5, 7-9, 11, 13-22, and 24-40 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent 5,636,122 (Shah) in view of U.S. Patent 6,131,067 (Girerd) and U.S. Patent 5,021,794 (Lawrence). Claims 6 and 10 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Shah and Girerd and further in view of U.S. Patent 6,353,743 (Karmel) and U.S. Patent 5,155,689 (Wortham). Claims 12 and 23 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Shah and Girerd and further in view of U.S. Patent 6,324,404 (Dennison). Applicants' undersigned representative respectfully requests reconsideration and withdrawal of these rejections in view of the above-referenced amendments and following remarks.

Claims 1 through 38 Are Non-Obvious

Applicants have disclosed

“an automated system for gathering data related to the position of a field crew, communicating requests for the position data, and communicating the desired position in response to the request. The system comprises an enterprise computing system, at least one mobile field unit, and wireless

communication network which supports transmission control protocol/internet protocol (TCP/IP). . . . **Each mobile field unit and machine in the enterprise computing system has a unique IP address assigned to it. Accordingly, commands and position data be communicated freely between all machines."**

(Application, p. 2, ln. 27 – p. 3, ln. 14.) Therefore, in a disclosed embodiment, an individual mobile field unit can access position data from the enterprise system, *but can also request and receive data directly from other mobile field units.* }

Accordingly, claim 1 is directed to "a crew locator system for distributing field crew position data gathered from a global positioning system to a geographically distributed field crew, comprising:"

a wireless communication network;
an enterprise computing system in communication with said wireless network, said enterprise computing system operable to receive field crew position data, store the field crew position data, and in response to requests for the field crew position data transmit the field crew position data;
a first mobile field unit in communication with said wireless network, said first mobile field unit operable to gather position data transmitted from a global positioning system and transmit the field crew position data to said enterprise computing system; and
a second mobile field unit in communication with said wireless network, said second mobile field unit operable to request the field position data from said first mobile field unit, receive the field position data from the first mobile field unit, and display the field position data;
wherein said first mobile field unit is operable to transmit the field crew position data to said second mobile field unit.

Similarly, claim 38 is directed to a "method for distributing field crew position data in a system having a plurality of mobile field units, an enterprise system, and a TCP/IP wireless network: comprising:"

(a) at a first mobile field unit, gathering and processing position data;

- (b) at the first mobile field unit, receiving and processing a request to forward the position data to the enterprise system;
- (c) at the first mobile field unit, transmitting the position data to the enterprise system;
- (d) at the enterprise system, processing and storing the position data;
- (e) at the enterprise system, in response to a request for positioning data from a second mobile field unit, retrieving the position data;
- (f) at the enterprise system, formatting the position data;
- (g) at the enterprise system, transmitting the position data to the second mobile field unit;
- (h) at the second mobile field unit, displaying the position data;
- (i) **at a third mobile field unit, requesting the position data from the first mobile field unit;**
- (j) **at the first mobile field unit, receiving the request to forward the position data to the third mobile unit;**
- (k) **at the first mobile field unit, transmitting the position data to the third mobile unit;**
- (l) **at the third mobile field unit, receiving the position data from the first mobile field unit; and**
- (m) **at the third mobile field unit, displaying the position data.**

In order for a set of references to render these claims obvious, the references must teach the combination of all of the claimed limitations, including those emphasized. Applicants' undersigned representative respectfully submits that the cited references do not teach the emphasized claim limitations at all, and certainly do not suggest combining these limitations with another reference to arrive at the claimed combination.

The Examiner states that Shah "is silent on" direct communication of position data between mobile field units. (Office Action pp. 4). However, in the Response to Applicants' arguments, the Examiner asserts two characterizations of Shah to suggest that Shah, in fact, teaches direct communication between field units (Office Action pp. 2). First, the Examiner asserts that, in Shah, "the first mobile unit can easily contact the dispatch center for the location of another mobile." However, Applicants submit that, even if this characterization is correct, Shah still does not teach or suggest direct communication of position data between

mobile field units. Rather, this characterization merely suggests that mobile units can communicate position data via a dispatcher.

Secondly, the Examiner asserts that, in Shah, "The mobile units can be mobile laptops with email capability to allow them to wirelessly email another mobile to request their location." However, Applicants submit that, even if this characterization is correct, Shah still does not teach or suggest direct communication of position data between mobile field units. Even if the mobile units of Shah are capable of email communication, the mobile unit to dispatcher communication system of Shah would require that such email communication be made via the dispatcher rather than directly between mobile units.

Additionally, the Examiner cites Lawrence as teaching "a user location system that allows a mobile user to obtain the location of another mobile (or mobiles) user via [a] phone." (Office Action, p. 4). Applicants' undersigned representative respectfully disagrees with this characterization of Lawrence. In truth, Lawrence teaches a system wherein a *conventional phone (i.e. not a mobile phone)* is connected over a wired network to repeater station 24. (Col. 2, ll. 25-29). A panic signal received over the wired network at repeater station 24 is transmitted wirelessly as an initiating signal to radio transceiver 17 located on a person. (Col. 2, ll. 21-33). The initiating signal causes radio transceiver 117 to transmit a homing signal. (Col. 2, ll. 34-37). Police cars or airborne units in the locality are equipped with radio direction and distance measuring equipment. With such equipment indicating the transceiver's direction and distance, the person to be located can be pin-pointed and approached. (Col. 2, ll. 41-44). Thus, Lawrence teaches a system wherein upon receiving an **activation signal** from a **stationary receiver station 24**, a mobile transceiver 17 begins to transmit a **homing signal** that is received by police cars. In contradistinction to claims 1 and 38, Lawrence does not teach a first mobile field unit that requests field position data from a second mobile field unit, receive field position from the second mobile field unit and display the mobile position data. Indeed, the transceiver 17 taught by Lawrence does not even transmit field position data at all, but rather transmits a homing signal. Furthermore, the homing signal is not received at a mobile field unit from which it was requested, or even at the stationary receiver station 24 that sent the activation signal, but at a fleet of police cars that can hone in on the signal. Finally, because transceiver 17 does not transmit field position data, the field position data cannot be displayed at the police cars. Thus, Lawrence does not

teach or even suggest the claimed elements. Indeed, Lawrence actually teaches away from the claimed invention by teaching two-way radio communication with a central dispatcher (Col. 3, ln. 50-51). Finally, even if Lawrence taught the claimed features, which it does not, there is no teaching or suggestion to combine it with the teachings of Shah to arrive at the claimed combination of elements. If the Examiner maintains this rejection, Applicants' undersigned representative respectfully requests that the Examiner identify where specifically Lawrence teaches directly transmitting field position data to a mobile field unit that has requested such information, and where specifically Lawrence teaches combining this teaching with the teachings of Shah to arrive at the claimed combination.

Claim 39 Is Non-Obvious

Claim 39 is directed to a method for receiving and storing position data in a system having a plurality of mobile field units, an enterprise system, and a TCP/IP wireless network, comprising the following steps:

- (a) at the enterprise system, **receiving position data from one of the plurality of mobile field units, said position data comprising latitude and longitude coordinates, velocity statistics, and direction statistics;**
- (b) parsing the position data;
- (c) retrieving latitude and longitude coordinates from the position data;
- (d) retrieving velocity and direction statistics from the position data;
- (e) converting the latitude and longitude coordinates to plane coordinates; and
- (f) storing the plane coordinates, velocity, and direction.

In order for a reference or set of references to render this claim obvious, the references must teach the combination of all of the recited claim limitations, including those emphasized. Applicants' undersigned representative respectfully submits that neither Shah nor the other cited references teaches or suggests these combination of elements.

In connection with claim 39, the Examiner suggests:

Shah teaches location[,] . . . speed and direction of the mobile unit. . . . Since Shah does teach that lat/long is sent periodically (for example every 5 minutes) one skilled in the art can derive

speed and direction based upon the data points collected. Shah is silent on "plan coordinates" but teaches converting lat/long into map coordinates which reads on the claim.

Office Action, p. 3. In truth, Shah indicates "[l]atitude and longitude position data are periodically transmitted at for example 5 minute increments or less to mobile information center block." Shah does **not** teach receiving velocity and direction statistics. In contradistinction, claim 39 requires "**receiving position data from one of the plurality of mobile field units, said position data comprising latitude and longitude coordinates, velocity statistics, and direction statistics.**" Thus, Shah entirely fails to teach a claimed limitation. Furthermore, by teaching receiving only latitude and longitude data from mobile field units, Shah teaches away from receiving velocity and direction statistics.

In the Response to Arguments, the Examiner asserts that, "reception of lat/long data periodically would provide means for the user to calculate velocity and direction (to a fairly accurate degree) (Office Action, pp. 2)." Direction and velocity can and often do change, especially over the five minute interval between which the latitude and longitude readings are taken in the system disclosed by Shah. Relying on past position data to extrapolate a current direction and velocity results in inaccurate and stale results as compared to the claimed system which receives the actual velocity and direction as part of the position data.

The claimed invention provides direction and velocity statistics as part of the position data. Because the position data is received from a mobile unit which is in constant connection with a GPS, the position data may reflect instantaneous changes in velocity and direction rather than merely reflecting an average change occurring over an interval between transmissions. Such instantaneous statistics are clearly preferable and not at all comparable to estimates over a transmission period. For example, in the five minute transmission interval disclosed by Shah, a mobile unit may head due south for the first four minutes and then head due north for the last minute. The mobile unit may travel at a constant speed of 60 miles per hour. At best, the system of Shah enables an estimate of the direction and velocity of the mobile unit at the end of the five minute period relative to the beginning of the five minute period. Thus, at best, the system of Shah enables an estimate that the mobile unit is heading due south at a speed of 48 miles per hour, when, in fact, the mobile unit is heading in the

exact opposite direction at a different speed (due north at a speed of 60 miles per hour). By contrast, the claimed invention will provide data reflecting the current velocity and direction of the mobile unit.

Therefore, because Shah neither teaches nor suggests receiving position data from one of the plurality of mobile field units, wherein the position data comprises latitude and longitude coordinates, velocity statistics, and direction statistics, it cannot possibly render claim 39 obvious. Accordingly, a withdrawal of the rejection is respectfully requested.

Claim 40 Is Non-Obvious

Claim 40 is directed to a “method for formatting position data in a system having a plurality of mobile field units, an enterprise system, and a TCP/IP wireless network, comprising the following steps:”

- (a) at the enterprise system, retrieving the position data, **said position data comprising latitude and longitude coordinates, velocity statistics, and direction statistics transmitted from a mobile field unit;**
- (b) generating a first file comprising the position data;
- (c) generating a second file, said second file being loadable by a web browser and having a reference to said first file wherein upon loading said second file in a web browser, the web browser displays the position data stored in said first file.

In order for a reference or set of references to render this claim obvious, the references must teach all of the recited claim limitations, including those emphasized. Furthermore, the references must teach or suggest combining all of the claim limitations as specified in the recited claim. Applicants' undersigned representative respectfully submits that neither Shah nor the other cited references teaches the recited claim limitations and cannot possibly suggest combining the references as specified in the claim.

For the reasons discussed above with reference to claim 39, Applicants respectfully submit that the cited references do not teach or suggest position data comprising velocity and direction statistics transmitted from a mobile field unit.


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PATENT
REPLY FILED UNDER EXPEDITED
PROCEDURE PURSUANT TO
37 CFR § 1.116

CONCLUSION

Applicants' undersigned representative respectfully submits the claims patentably define over the prior art of record and are in condition for allowance. Reconsideration of the present Office Action issued on September 22, 2003 and a Notice of Allowance are respectfully requested.

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